

Name: _____ Date: _____

Polynomial Factoring practice (version 1)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 10x + 37 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-4 + 9i$ and $2 + 6i$ in standard form $(a + bi)$.

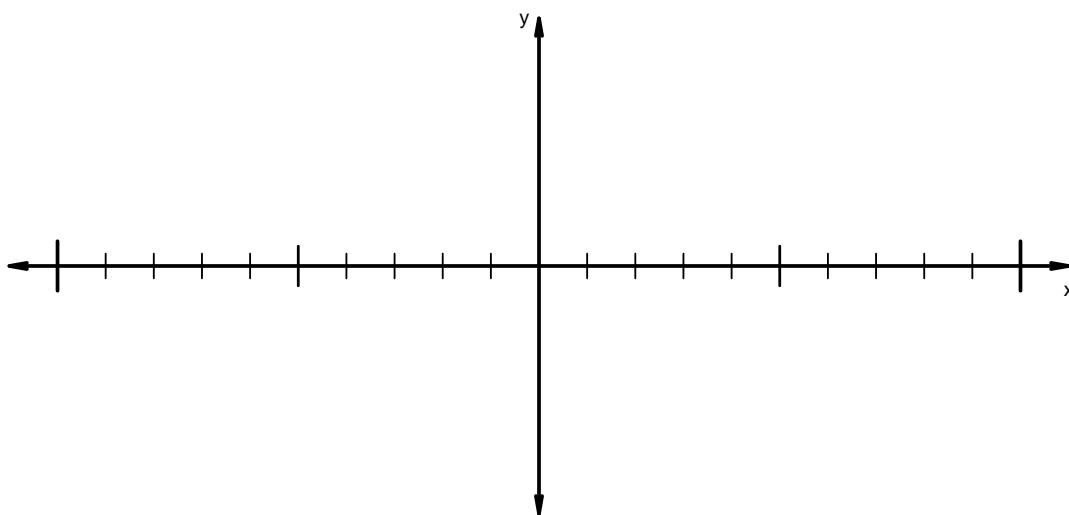
Polynomial Factoring practice (version 1)

3. Write function $f(x) = x^3 - 8x^2 + 19x - 12$ in factored form. I'll give you a hint: one factor is $(x - 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 4)^2 \cdot (x - 1) \cdot (x - 6)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 2)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 2x + 14 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-2 - 6i$ and $9 - 5i$ in standard form $(a + bi)$.

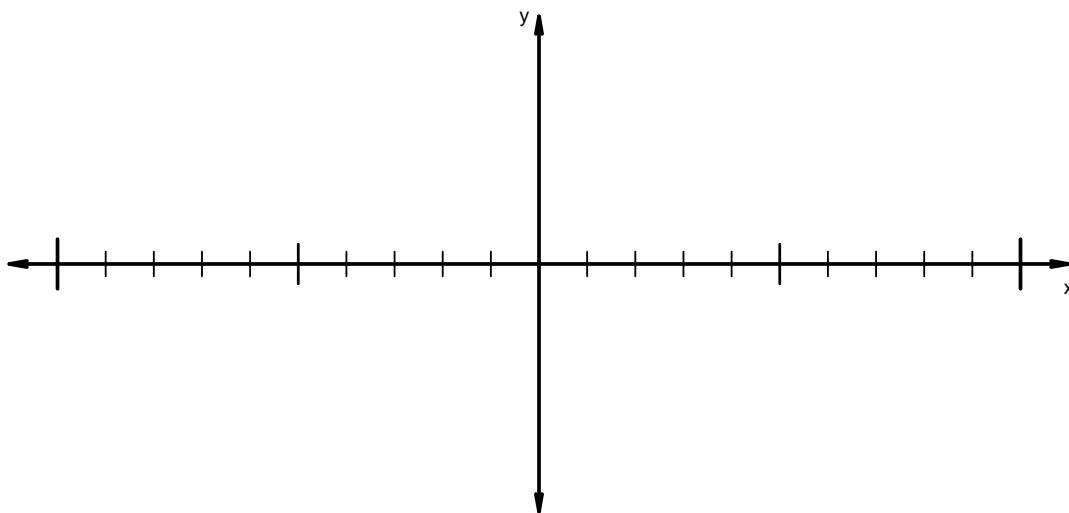
Polynomial Factoring practice (version 2)

3. Write function $f(x) = x^3 + 11x^2 + 34x + 24$ in factored form. I'll give you a hint: one factor is $(x + 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 5)^2 \cdot (x + 1)^2 \cdot (x - 2) \cdot (x - 5)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 3)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 4x + 16 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $9 + 7i$ and $3 + 2i$ in standard form $(a + bi)$.

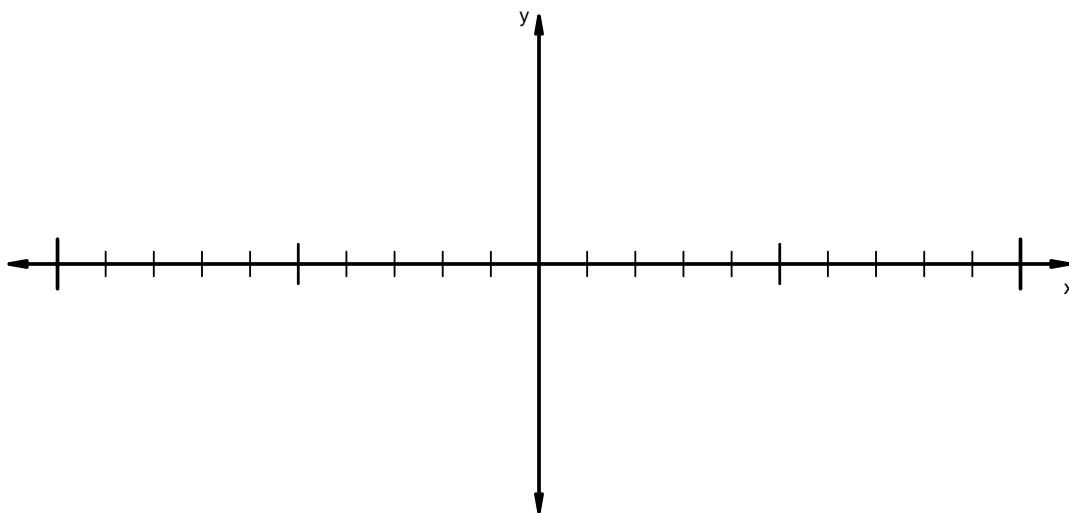
Polynomial Factoring practice (version 3)

3. Write function $f(x) = x^3 + 3x^2 - 6x - 8$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 2) \cdot (x - 2)^2 \cdot (x - 5)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 4)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 8x + 36 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 + 6i$ and $3 + 4i$ in standard form $(a + bi)$.

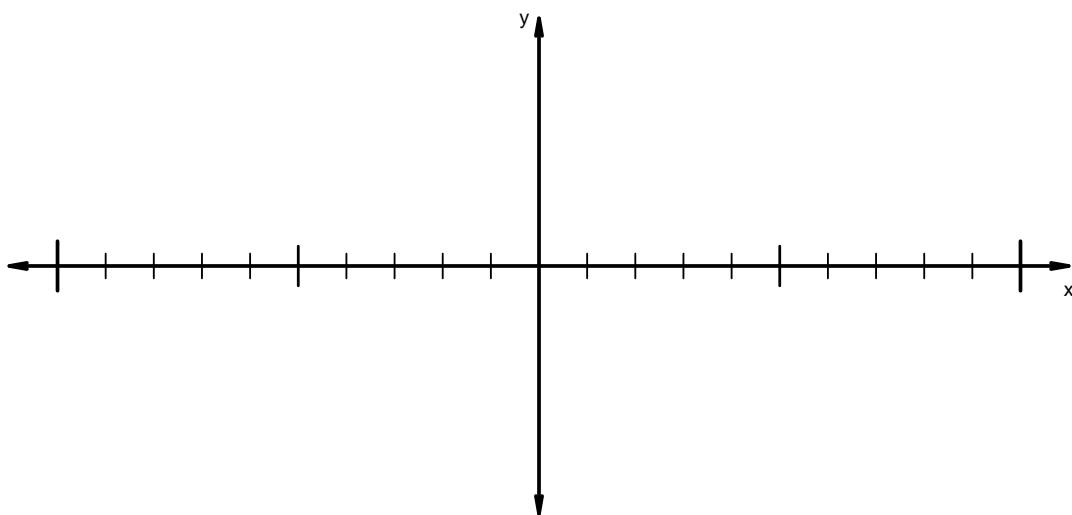
Polynomial Factoring practice (version 4)

3. Write function $f(x) = x^3 + 9x^2 + 8x - 60$ in factored form. I'll give you a hint: one factor is $(x + 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 4)^2 \cdot (x - 1)^2 \cdot (x - 5)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 5)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 15 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $3 + 6i$ and $-4 + 2i$ in standard form $(a + bi)$.

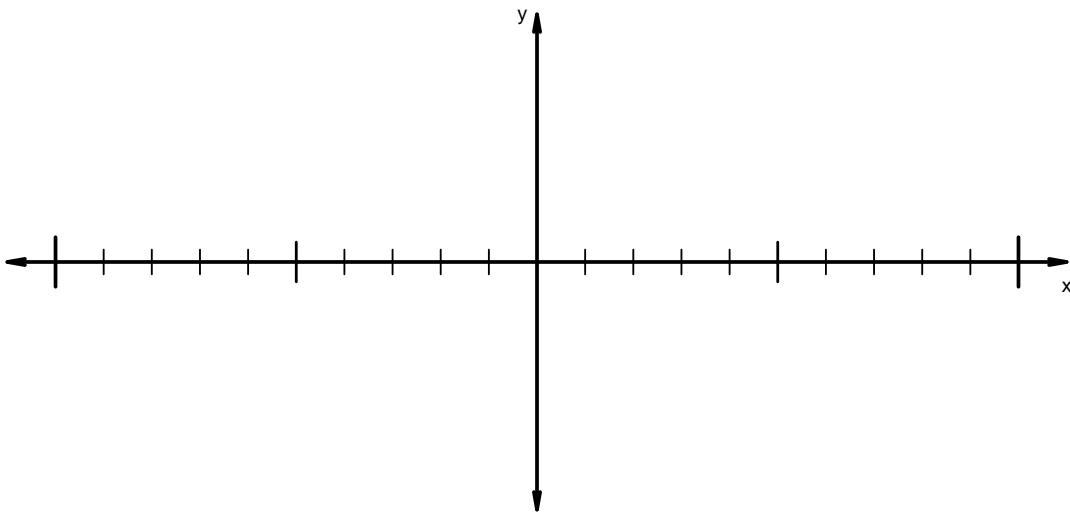
Polynomial Factoring practice (version 5)

3. Write function $f(x) = x^3 - 7x^2 + 2x + 40$ in factored form. I'll give you a hint: one factor is $(x + 2)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 8) \cdot (x + 3)^2 \cdot (x - 2)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 6)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 17 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $5 + 9i$ and $4 + 2i$ in standard form $(a + bi)$.

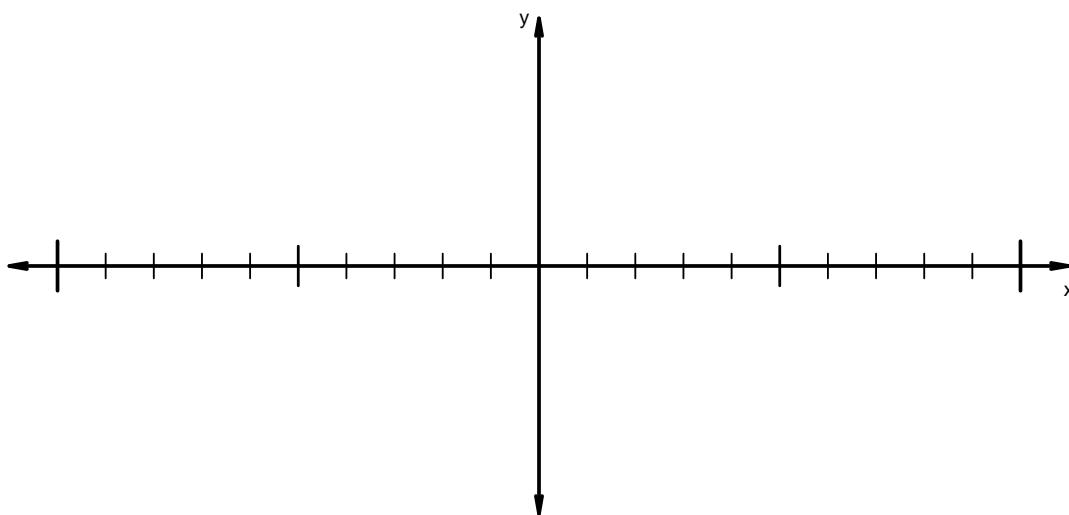
Polynomial Factoring practice (version 6)

3. Write function $f(x) = x^3 + x^2 - 22x - 40$ in factored form. I'll give you a hint: one factor is $(x - 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 4) \cdot (x + 1) \cdot (x - 4)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 7)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 10x + 30 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-5 + 3i$ and $-7 + 4i$ in standard form $(a + bi)$.

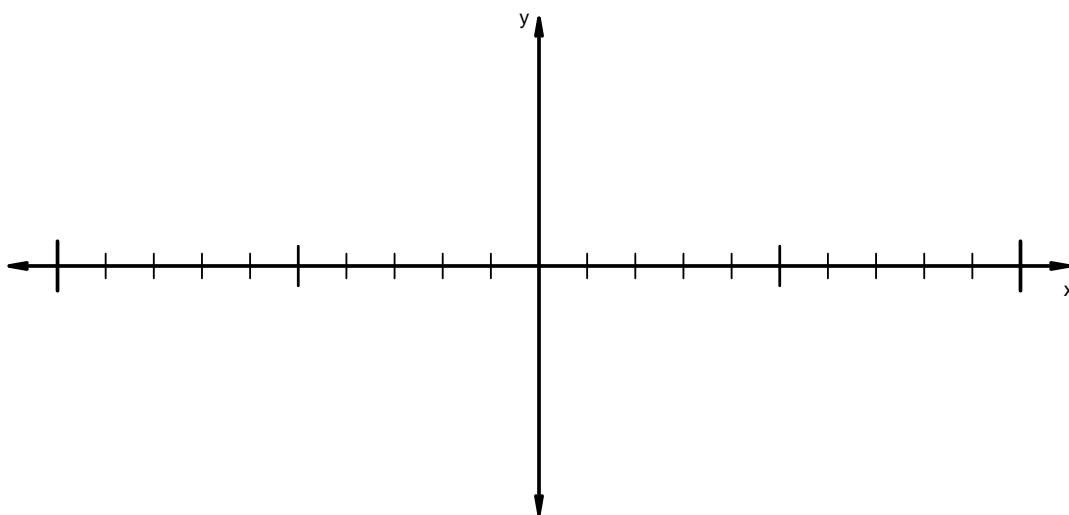
Polynomial Factoring practice (version 7)

3. Write function $f(x) = x^3 + 2x^2 - 5x - 6$ in factored form. I'll give you a hint: one factor is $(x + 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 4)^2 \cdot (x + 1) \cdot (x - 2)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 8)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 6x + 21 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 + 9i$ and $5 - 4i$ in standard form $(a + bi)$.

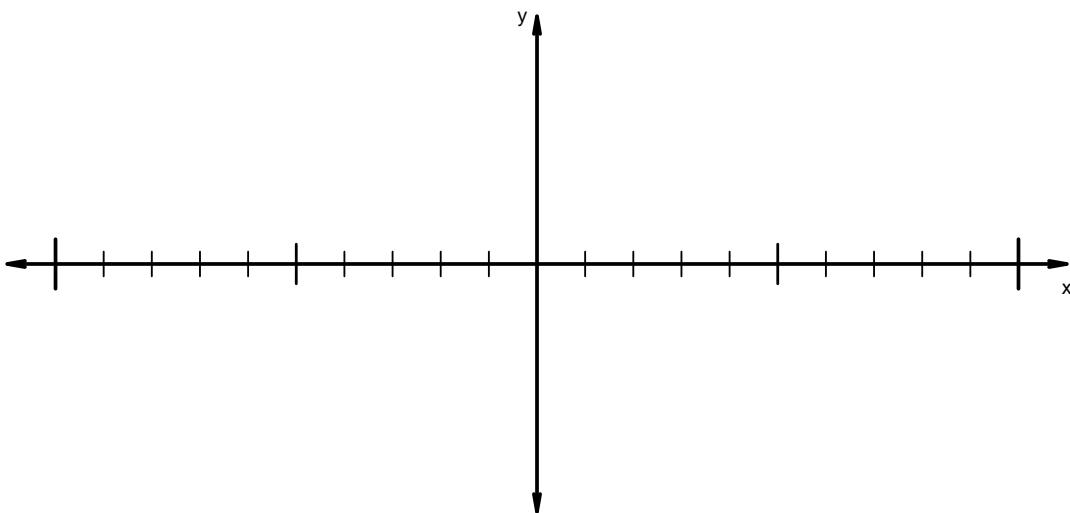
Polynomial Factoring practice (version 8)

3. Write function $f(x) = x^3 - 6x^2 + 11x - 6$ in factored form. I'll give you a hint: one factor is $(x - 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 3)^2 \cdot (x - 1) \cdot (x - 5)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 9)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 50 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 + 2i$ and $-8 + 6i$ in standard form $(a + bi)$.

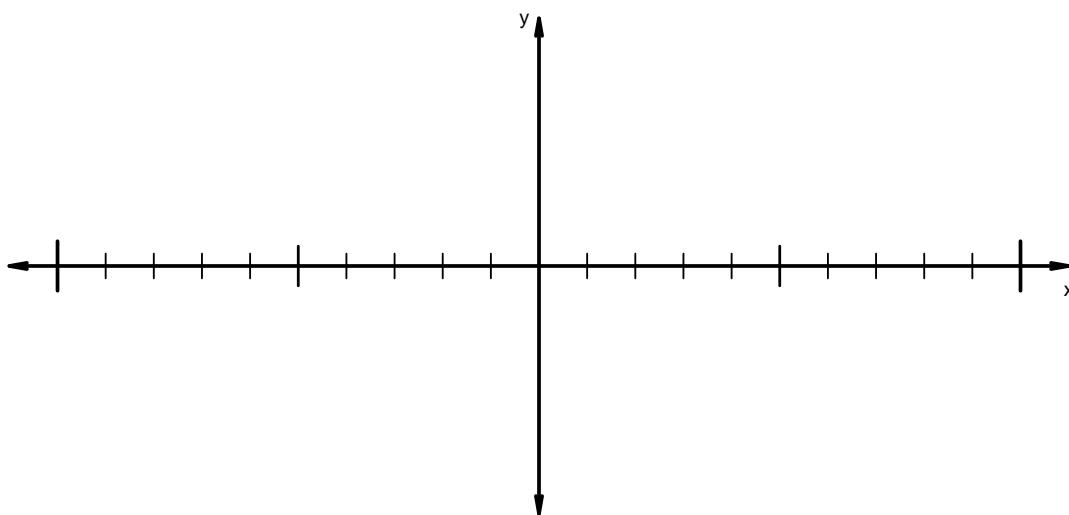
Polynomial Factoring practice (version 9)

3. Write function $f(x) = x^3 + 7x^2 + 14x + 8$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 3) \cdot (x - 7)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 10)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 2x + 21 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-6 + 2i$ and $-5 + 3i$ in standard form $(a + bi)$.

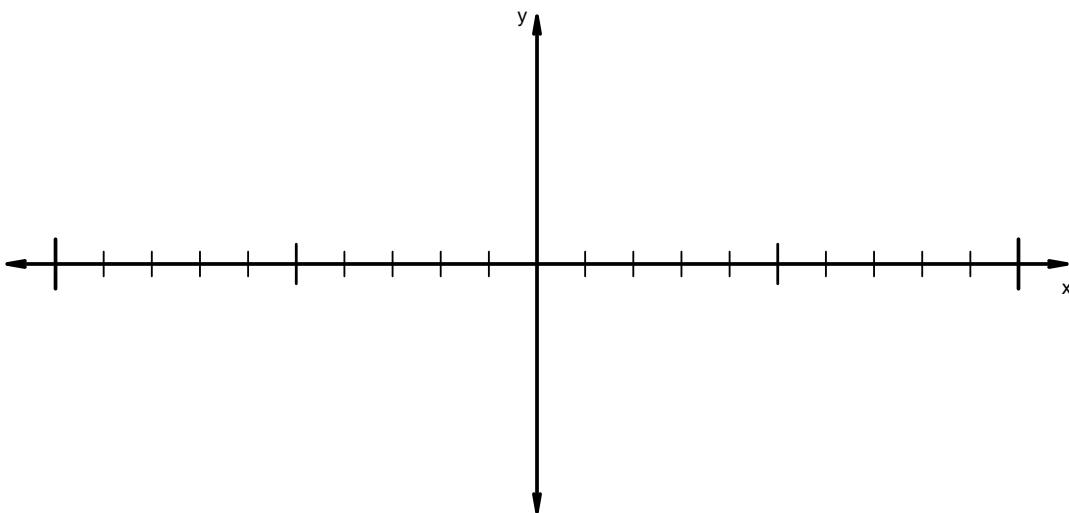
Polynomial Factoring practice (version 10)

3. Write function $f(x) = x^3 + x^2 - 26x + 24$ in factored form. I'll give you a hint: one factor is $(x + 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 6) \cdot (x + 3) \cdot (x - 1) \cdot (x - 4)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 11)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 6x + 27 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 - 7i$ and $-6 - 4i$ in standard form $(a + bi)$.

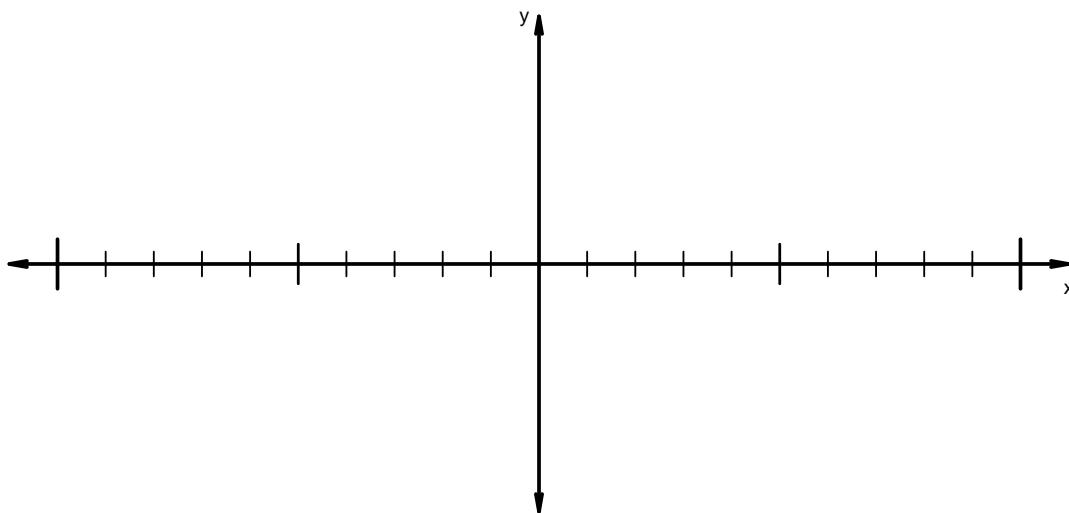
Polynomial Factoring practice (version 11)

3. Write function $f(x) = x^3 + 9x^2 + 8x - 60$ in factored form. I'll give you a hint: one factor is $(x + 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 6) \cdot (x + 1)^2 \cdot (x - 4)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 12)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 31 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $9 - 4i$ and $3 + 6i$ in standard form $(a + bi)$.

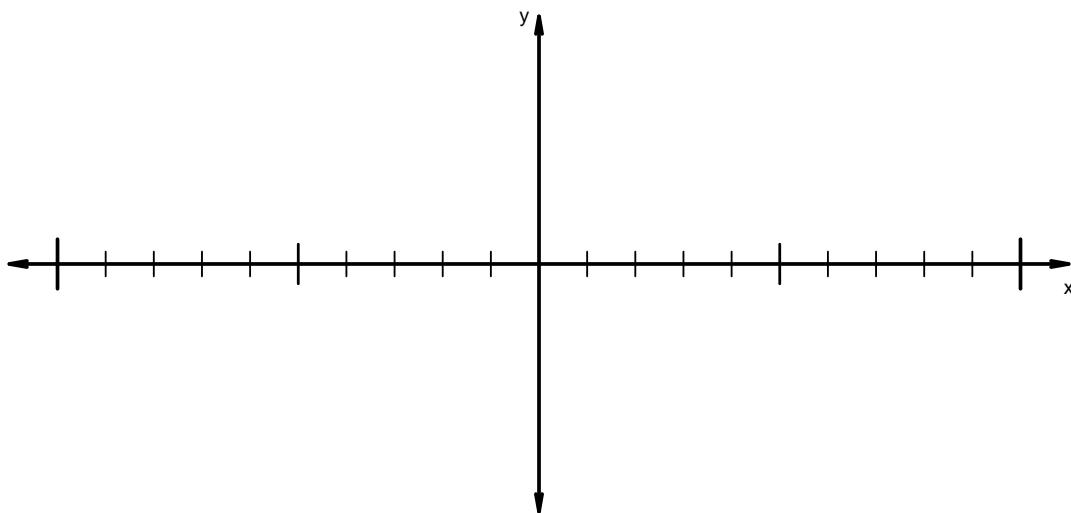
Polynomial Factoring practice (version 12)

3. Write function $f(x) = x^3 - 11x^2 + 34x - 24$ in factored form. I'll give you a hint: one factor is $(x - 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7) \cdot (x + 4)^2 \cdot (x - 1)^2 \cdot (x - 5)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 13)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 4x + 22 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $5 - 2i$ and $4 - 9i$ in standard form $(a + bi)$.

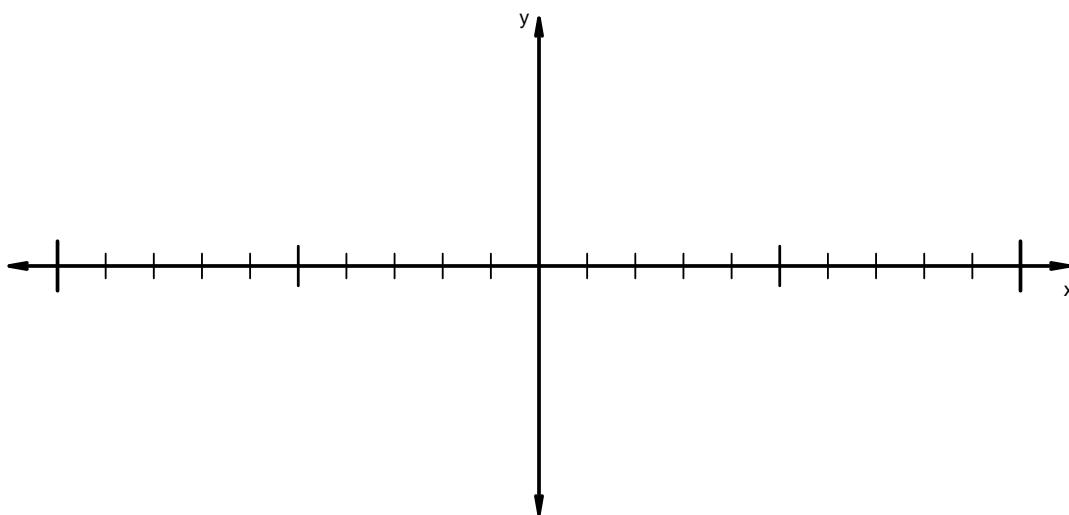
Polynomial Factoring practice (version 13)

3. Write function $f(x) = x^3 + x^2 - 22x - 40$ in factored form. I'll give you a hint: one factor is $(x + 2)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 3) \cdot (x - 2) \cdot (x - 6)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 14)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 6x + 33 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $4 - 7i$ and $-8 - 5i$ in standard form $(a + bi)$.

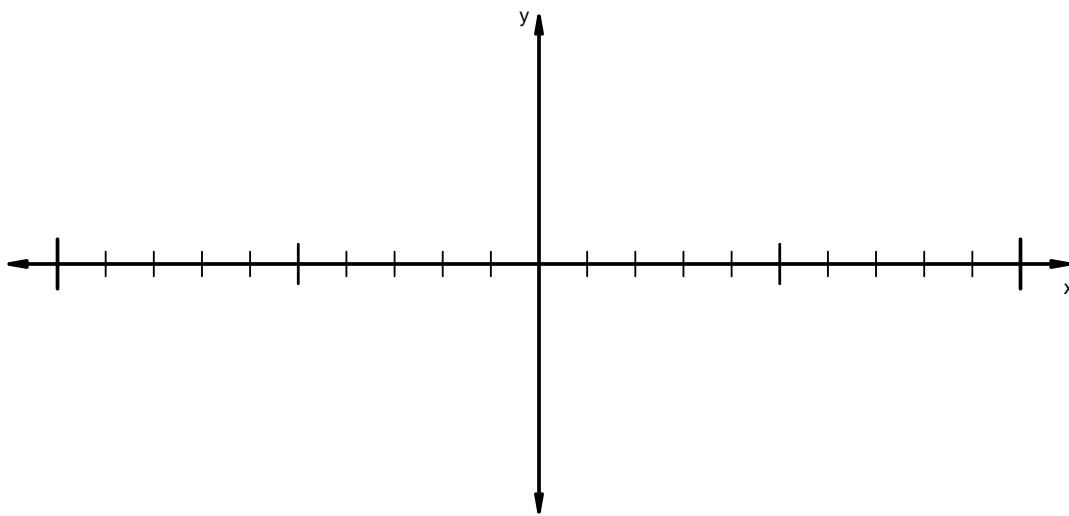
Polynomial Factoring practice (version 14)

3. Write function $f(x) = x^3 + x^2 - 26x + 24$ in factored form. I'll give you a hint: one factor is $(x + 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 2) \cdot (x - 2)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 15)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 60 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-7 - 2i$ and $5 - 6i$ in standard form $(a + bi)$.

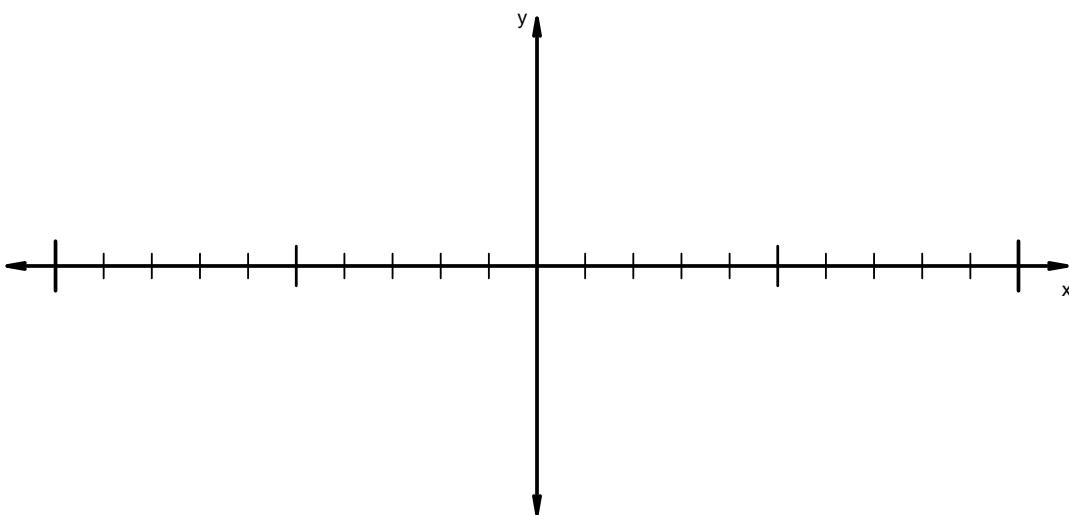
Polynomial Factoring practice (version 15)

3. Write function $f(x) = x^3 - 8x^2 + 4x + 48$ in factored form. I'll give you a hint: one factor is $(x - 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7) \cdot (x + 2) \cdot (x - 3)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 16)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 6x + 33 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-9 + 2i$ and $-6 + 3i$ in standard form $(a + bi)$.

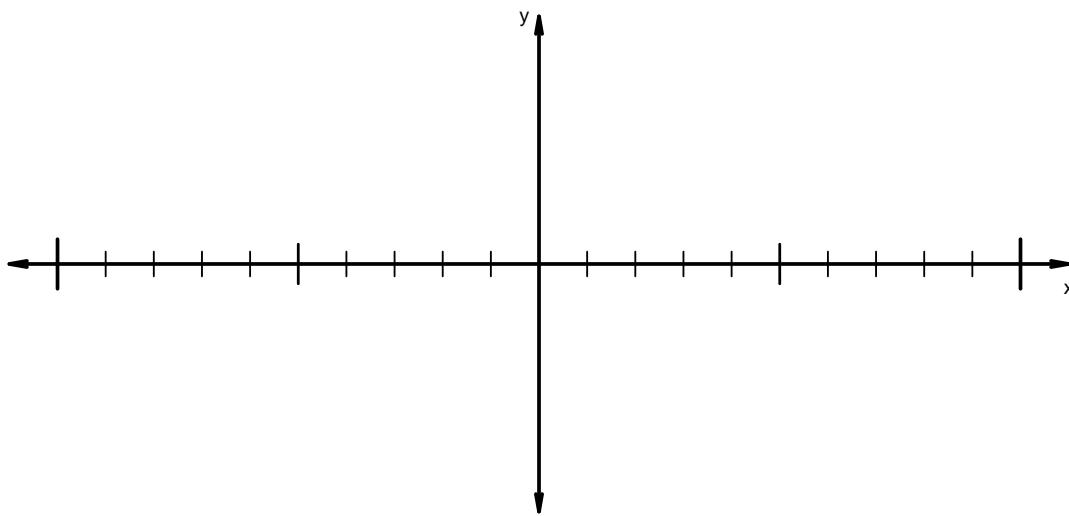
Polynomial Factoring practice (version 16)

3. Write function $f(x) = x^3 + 2x^2 - 11x - 12$ in factored form. I'll give you a hint: one factor is $(x + 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 3) \cdot (x - 1) \cdot (x - 4)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 17)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 10x + 27 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 - 5i$ and $-6 + 3i$ in standard form $(a + bi)$.

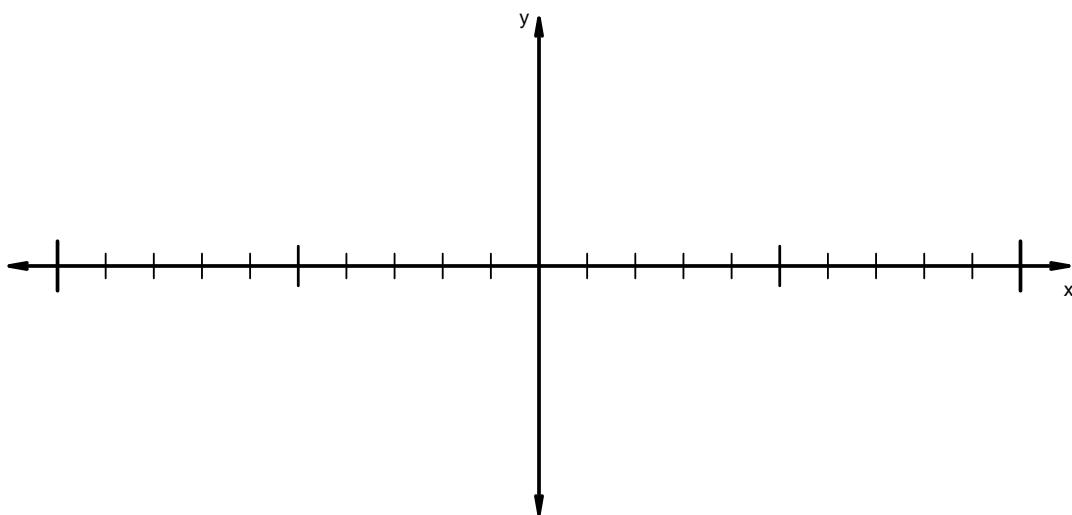
Polynomial Factoring practice (version 17)

3. Write function $f(x) = x^3 + 3x^2 - 22x - 24$ in factored form. I'll give you a hint: one factor is $(x + 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 1)^2 \cdot (x - 2) \cdot (x - 5) \cdot (x - 8)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 18)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 24 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $9 - 5i$ and $3 - 2i$ in standard form $(a + bi)$.

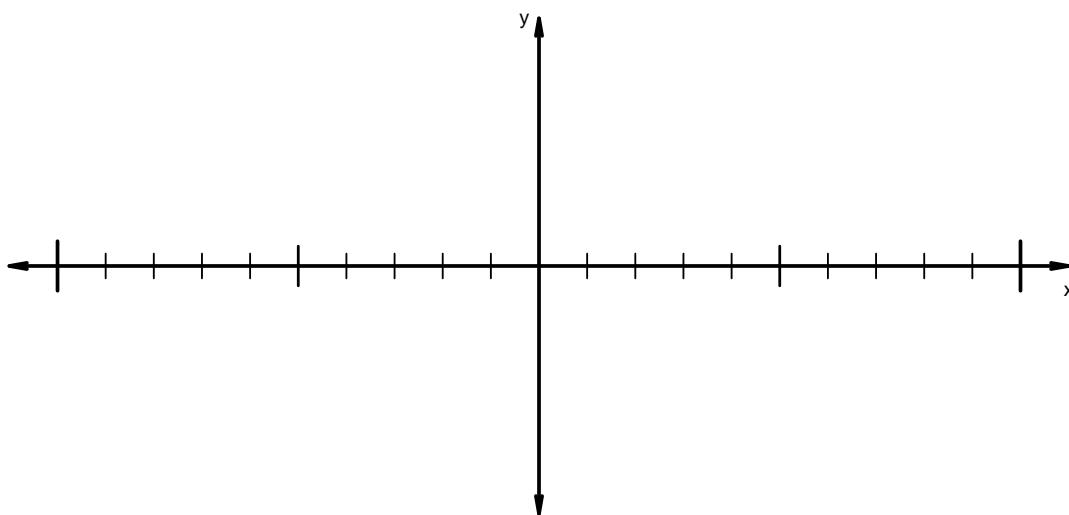
Polynomial Factoring practice (version 18)

3. Write function $f(x) = x^3 - 8x^2 + 9x + 18$ in factored form. I'll give you a hint: one factor is $(x - 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 1) \cdot (x - 5) \cdot (x - 8)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 19)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 36 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $6 + 7i$ and $5 + 4i$ in standard form $(a + bi)$.

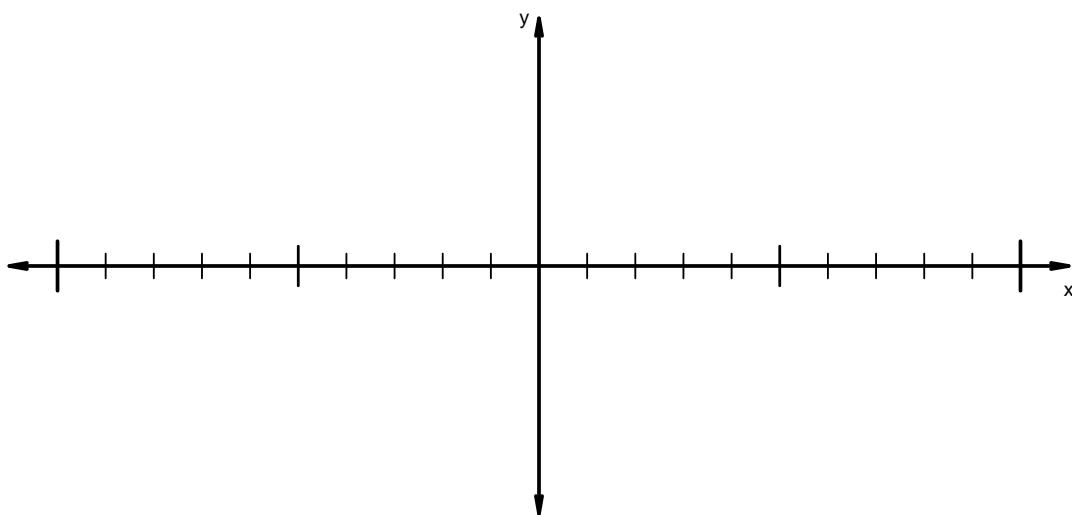
Polynomial Factoring practice (version 19)

3. Write function $f(x) = x^3 + 2x^2 - 23x - 60$ in factored form. I'll give you a hint: one factor is $(x - 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 1) \cdot (x - 4)^2 \cdot (x - 7)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 20)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 10x + 28 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $2 - 9i$ and $-7 - 5i$ in standard form $(a + bi)$.

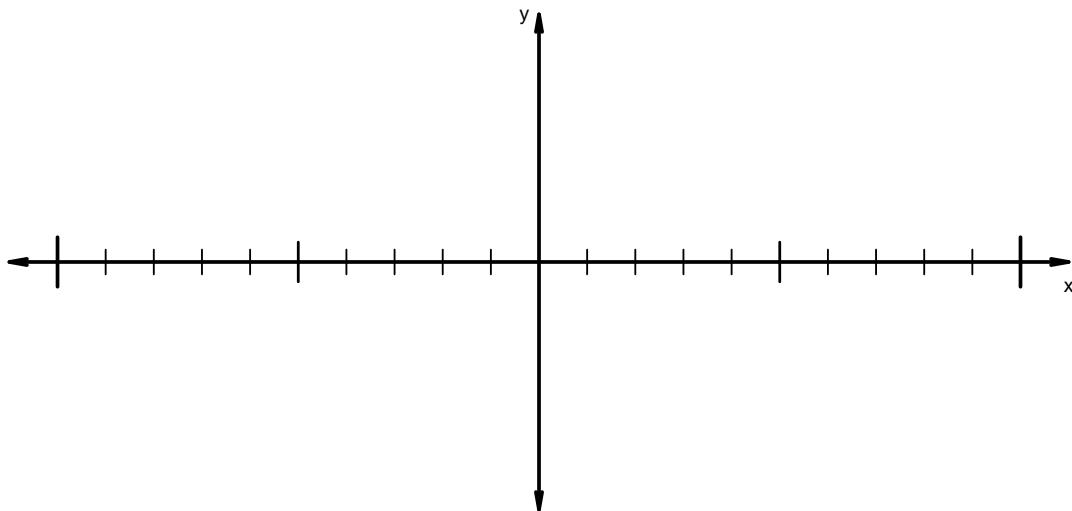
Polynomial Factoring practice (version 20)

3. Write function $f(x) = x^3 + 3x^2 - 13x - 15$ in factored form. I'll give you a hint: one factor is $(x + 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 7) \cdot (x + 3)^2 \cdot (x - 2)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 21)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 23 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $4 + 9i$ and $5 + 3i$ in standard form $(a + bi)$.

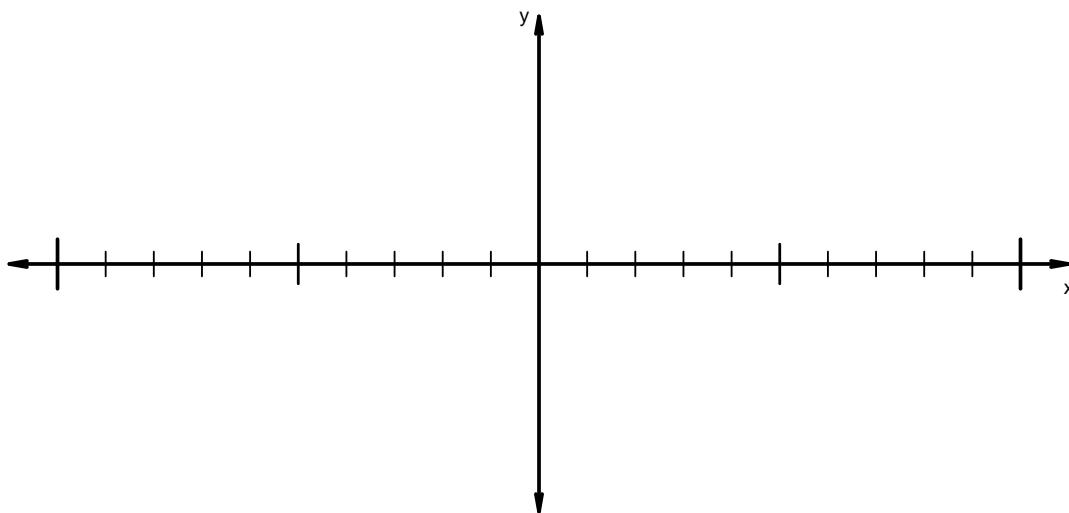
Polynomial Factoring practice (version 21)

3. Write function $f(x) = x^3 + 4x^2 - 25x - 100$ in factored form. I'll give you a hint: one factor is $(x - 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 3)^2 \cdot (x - 1) \cdot (x - 6)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 22)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 24 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $6 + 4i$ and $8 + 5i$ in standard form $(a + bi)$.

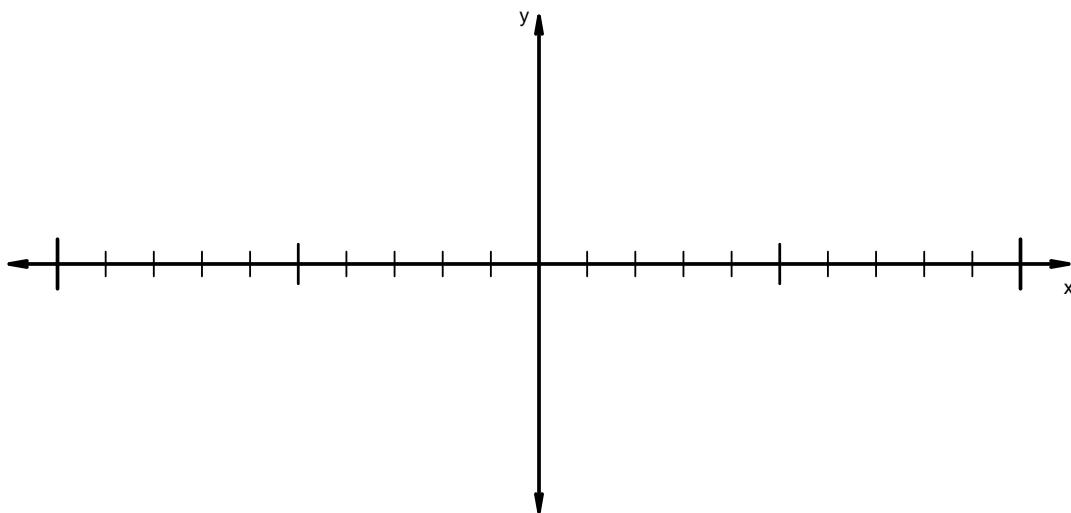
Polynomial Factoring practice (version 22)

3. Write function $f(x) = x^3 + 10x^2 + 27x + 18$ in factored form. I'll give you a hint: one factor is $(x + 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 4)^2 \cdot (x - 1) \cdot (x - 4)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 23)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 10x + 33 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 + 6i$ and $2 - 5i$ in standard form $(a + bi)$.

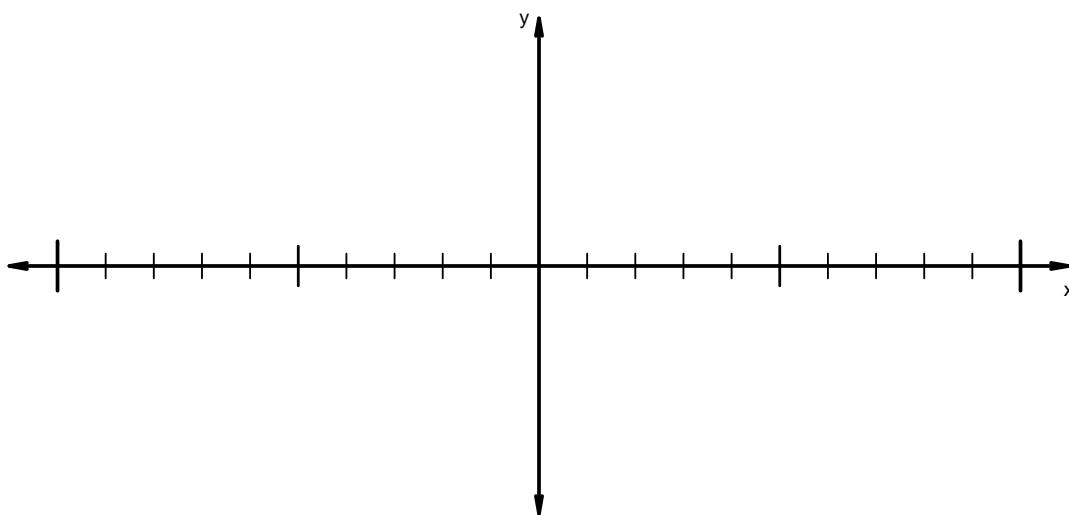
Polynomial Factoring practice (version 23)

3. Write function $f(x) = x^3 - 8x^2 + 11x + 20$ in factored form. I'll give you a hint: one factor is $(x + 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 2) \cdot (x - 6)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 24)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 2x + 21 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-6 + 3i$ and $-7 + 8i$ in standard form $(a + bi)$.

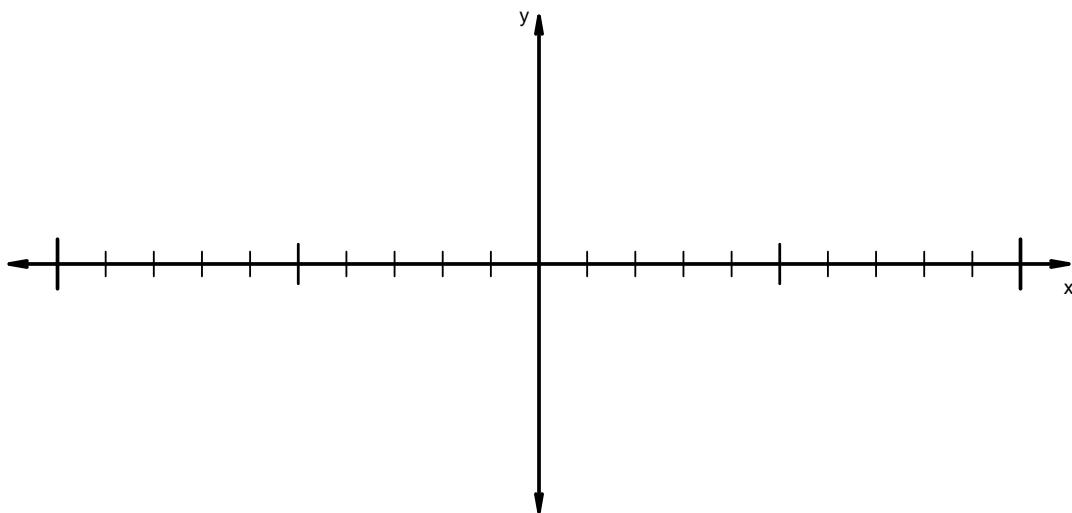
Polynomial Factoring practice (version 24)

3. Write function $f(x) = x^3 + 3x^2 - 16x + 12$ in factored form. I'll give you a hint: one factor is $(x - 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7) \cdot (x + 4) \cdot (x + 1)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 25)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 54 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $9 + 2i$ and $3 - 4i$ in standard form $(a + bi)$.

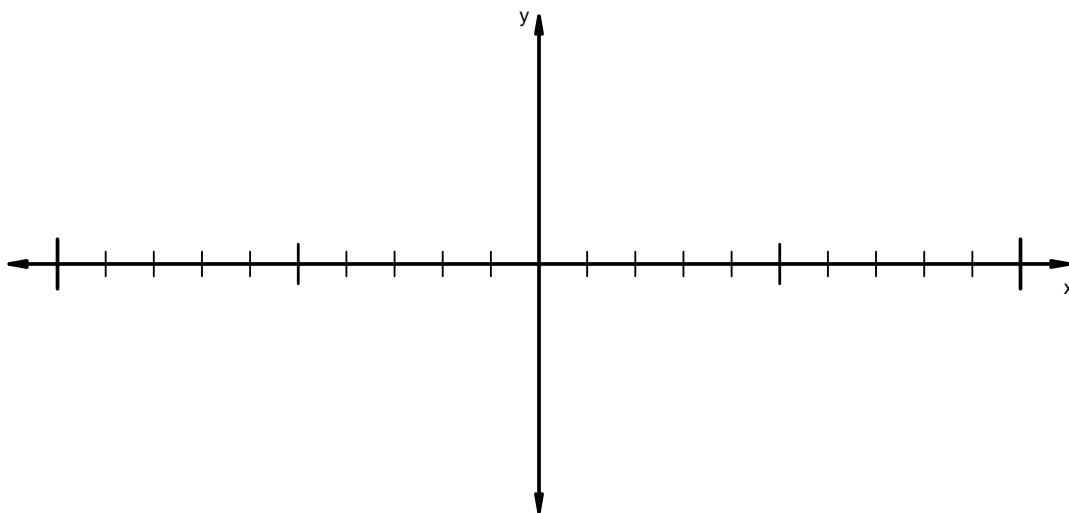
Polynomial Factoring practice (version 25)

3. Write function $f(x) = x^3 - x^2 - 14x + 24$ in factored form. I'll give you a hint: one factor is $(x - 2)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 4) \cdot (x - 1) \cdot (x - 4)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 26)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 2x + 25 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-3 + 5i$ and $7 + 6i$ in standard form $(a + bi)$.

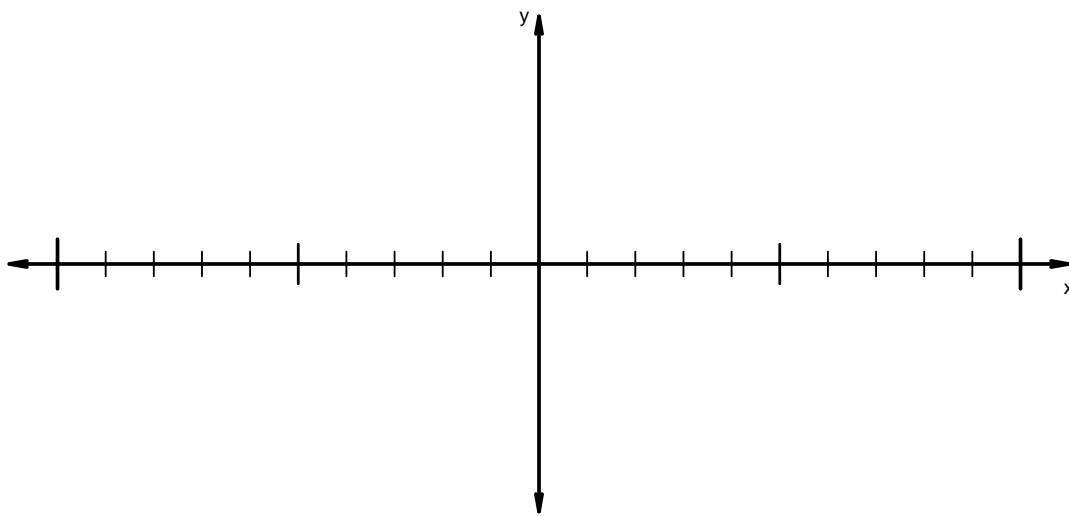
Polynomial Factoring practice (version 26)

3. Write function $f(x) = x^3 - 3x^2 - 18x + 40$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 6)^2 \cdot (x + 2)^2 \cdot (x - 1)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 27)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 12x + 54 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-2 - 9i$ and $6 + 4i$ in standard form $(a + bi)$.

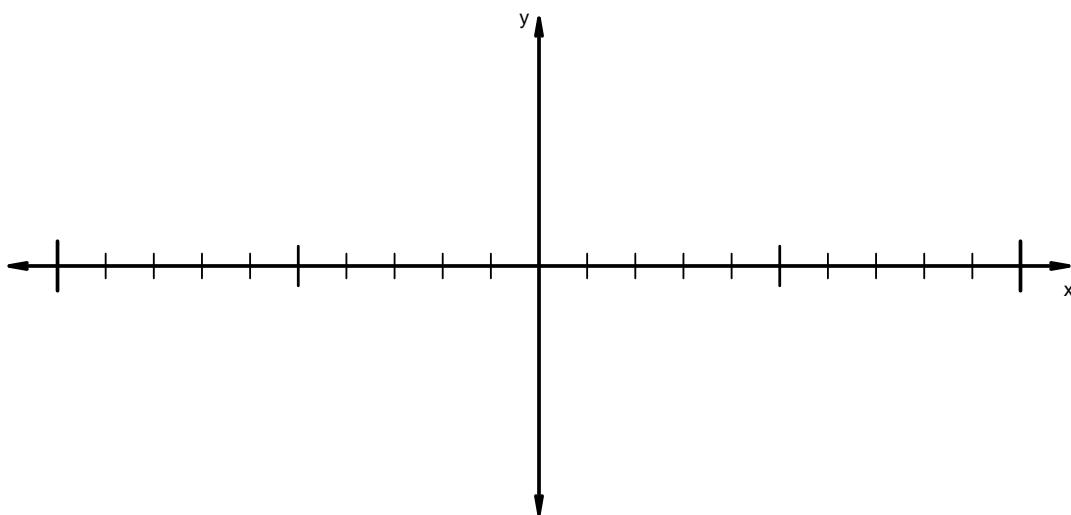
Polynomial Factoring practice (version 27)

3. Write function $f(x) = x^3 - 2x^2 - 36x + 72$ in factored form. I'll give you a hint: one factor is $(x + 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 5)^2 \cdot (x + 1) \cdot (x - 4) \cdot (x - 7)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 28)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 12x + 54 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-2 - 9i$ and $-3 - 6i$ in standard form $(a + bi)$.

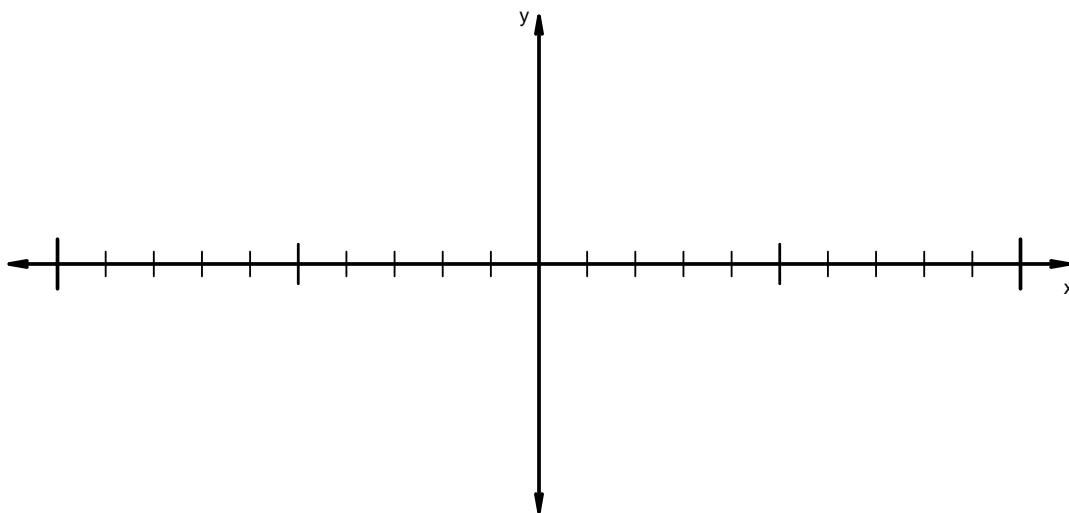
Polynomial Factoring practice (version 28)

3. Write function $f(x) = x^3 - 10x^2 + 31x - 30$ in factored form. I'll give you a hint: one factor is $(x - 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 6)^2 \cdot (x + 2) \cdot (x - 1) \cdot (x - 6)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 29)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 2x + 28 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-3 - 8i$ and $-2 + 4i$ in standard form $(a + bi)$.

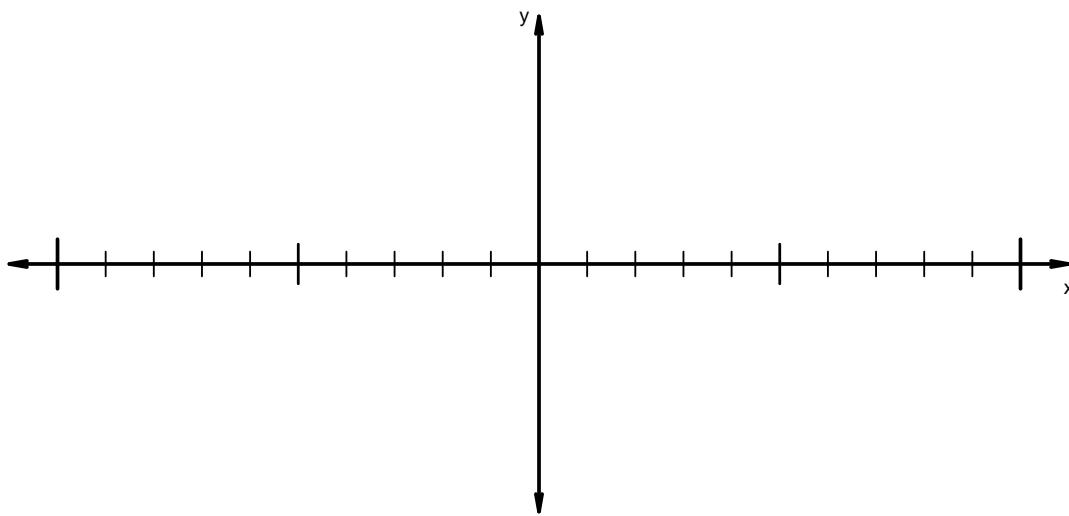
Polynomial Factoring practice (version 29)

3. Write function $f(x) = x^3 + 5x^2 - 18x - 72$ in factored form. I'll give you a hint: one factor is $(x - 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 6) \cdot (x + 2)^2 \cdot (x - 1)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 30)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 43 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-7 + 6i$ and $-5 + 3i$ in standard form $(a + bi)$.

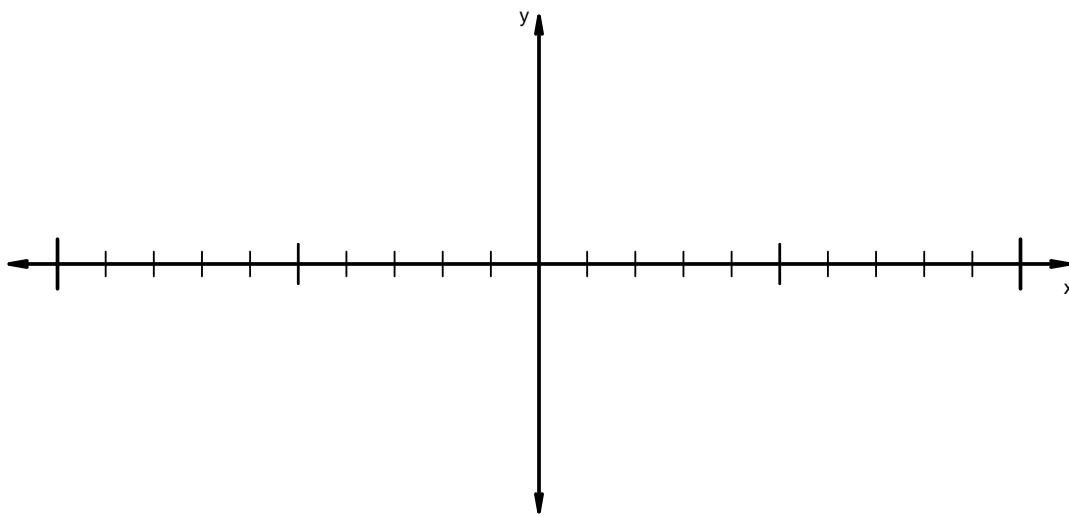
Polynomial Factoring practice (version 30)

3. Write function $f(x) = x^3 + 13x^2 + 54x + 72$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 5)^2 \cdot (x + 2)^2 \cdot (x - 1)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 31)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 63 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-2 + 7i$ and $8 - 6i$ in standard form $(a + bi)$.

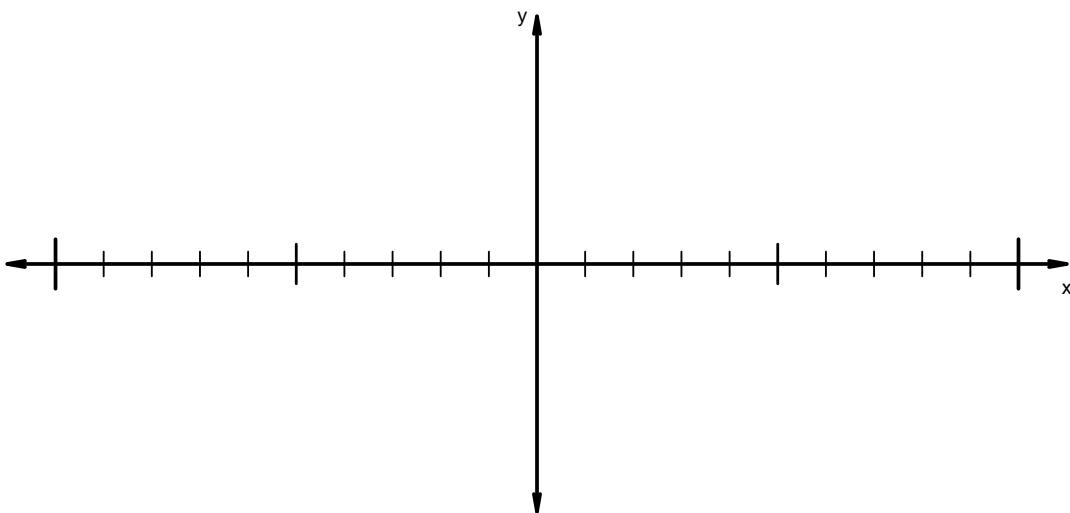
Polynomial Factoring practice (version 31)

3. Write function $f(x) = x^3 - 6x^2 - x + 6$ in factored form. I'll give you a hint: one factor is $(x - 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 4)^2 \cdot (x + 1)^2 \cdot (x - 2) \cdot (x - 5)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 32)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 2x + 25 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 - 3i$ and $2 - 4i$ in standard form $(a + bi)$.

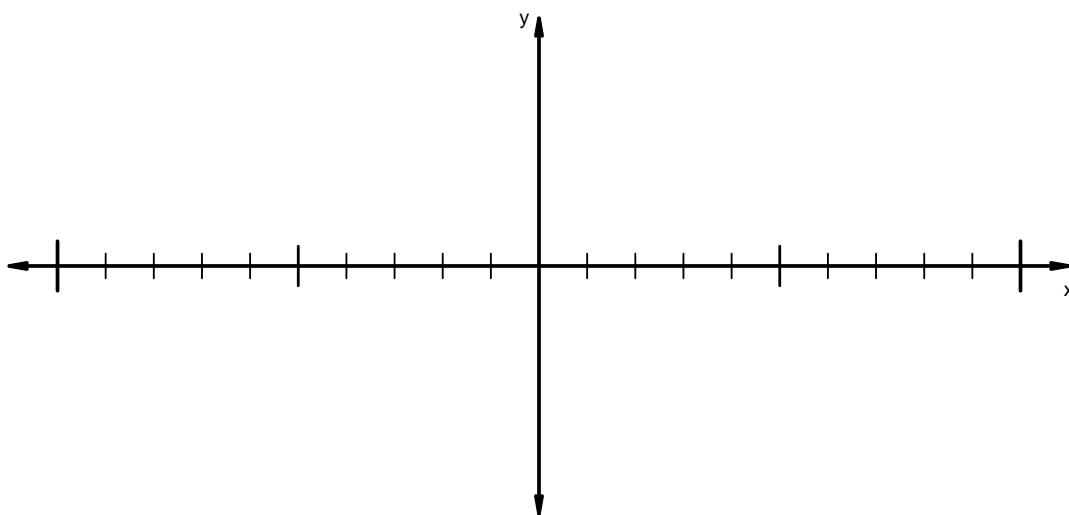
Polynomial Factoring practice (version 32)

3. Write function $f(x) = x^3 - 3x^2 - 16x - 12$ in factored form. I'll give you a hint: one factor is $(x - 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x - 1) \cdot (x - 4)^2 \cdot (x - 8)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 33)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 48 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-9 + 5i$ and $-2 - 6i$ in standard form $(a + bi)$.

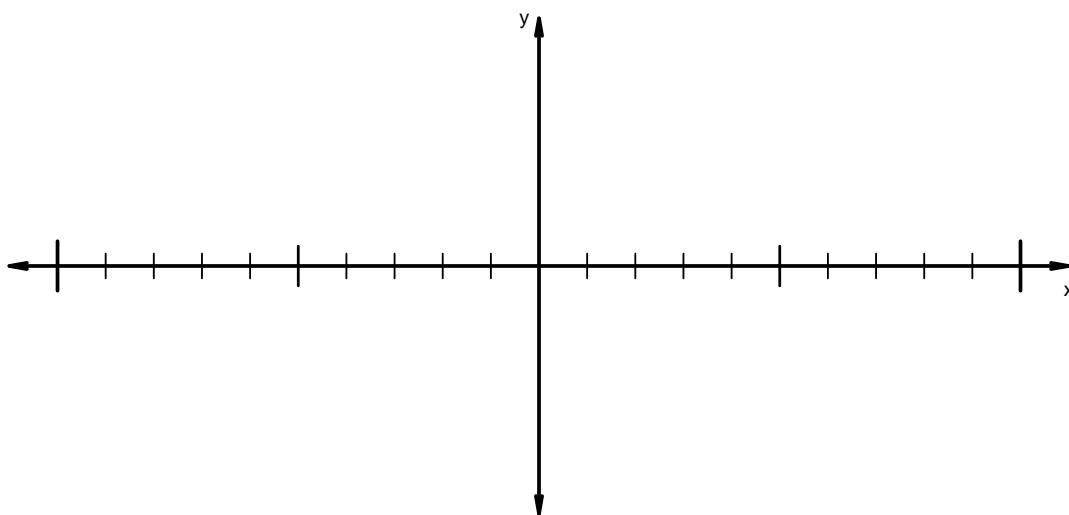
Polynomial Factoring practice (version 33)

3. Write function $f(x) = x^3 + 2x^2 - 19x - 20$ in factored form. I'll give you a hint: one factor is $(x - 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 4) \cdot (x + 1)^2 \cdot (x - 4)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 34)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 8x + 18 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 + 4i$ and $-5 + 2i$ in standard form $(a + bi)$.

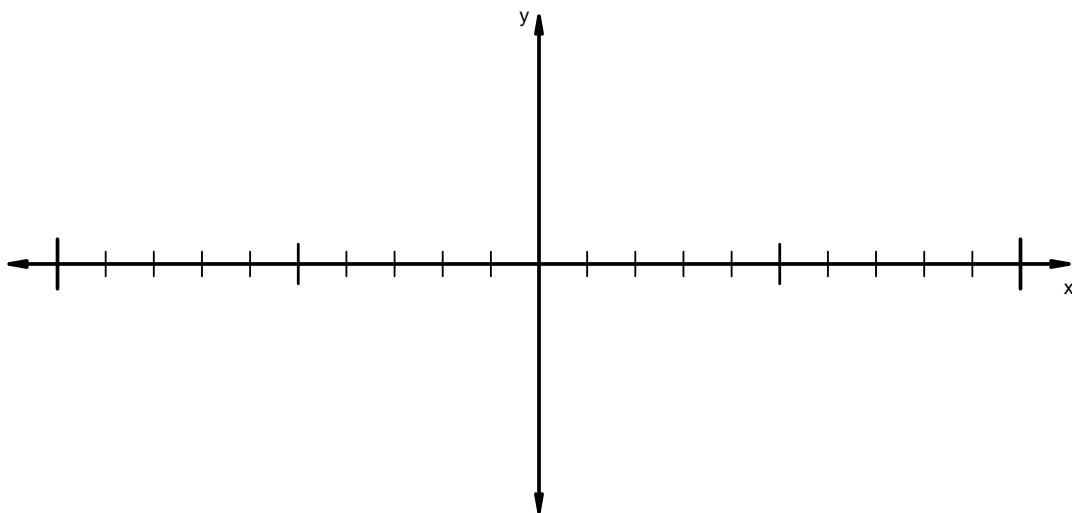
Polynomial Factoring practice (version 34)

3. Write function $f(x) = x^3 - 4x^2 - 27x + 90$ in factored form. I'll give you a hint: one factor is $(x - 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 4) \cdot (x + 1)^2 \cdot (x - 2)^2 \cdot (x - 5)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 35)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 7 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-9 - 2i$ and $-3 - 8i$ in standard form $(a + bi)$.

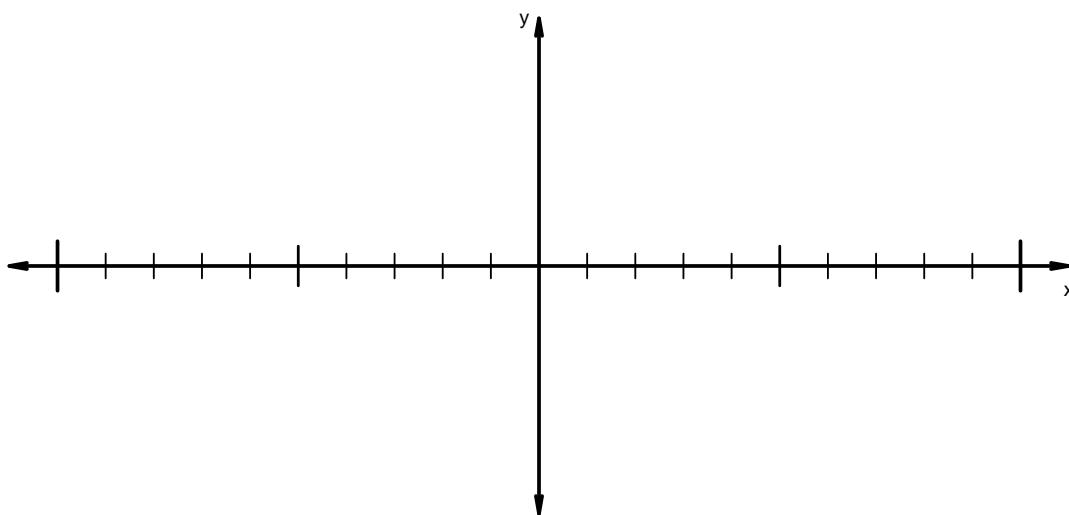
Polynomial Factoring practice (version 35)

3. Write function $f(x) = x^3 + 7x^2 + 14x + 8$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 8) \cdot (x + 3)^2 \cdot (x - 2)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 36)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 24 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-5 - 2i$ and $-3 - 9i$ in standard form $(a + bi)$.

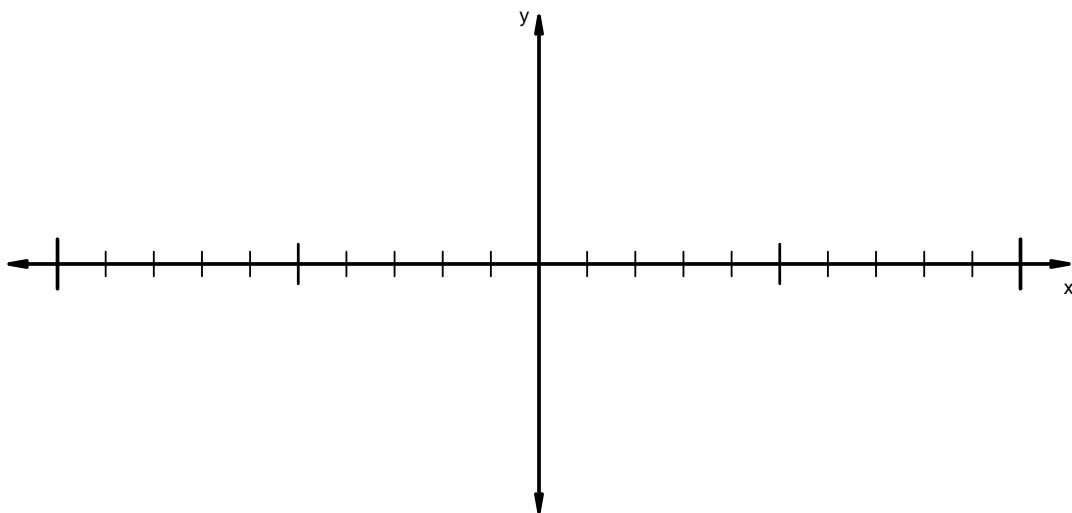
Polynomial Factoring practice (version 36)

3. Write function $f(x) = x^3 - 9x^2 + 8x + 60$ in factored form. I'll give you a hint: one factor is $(x - 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7)^2 \cdot (x + 3) \cdot (x - 2)^2 \cdot (x - 7)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 37)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 6x + 21 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $8 - 5i$ and $-4 + 2i$ in standard form $(a + bi)$.

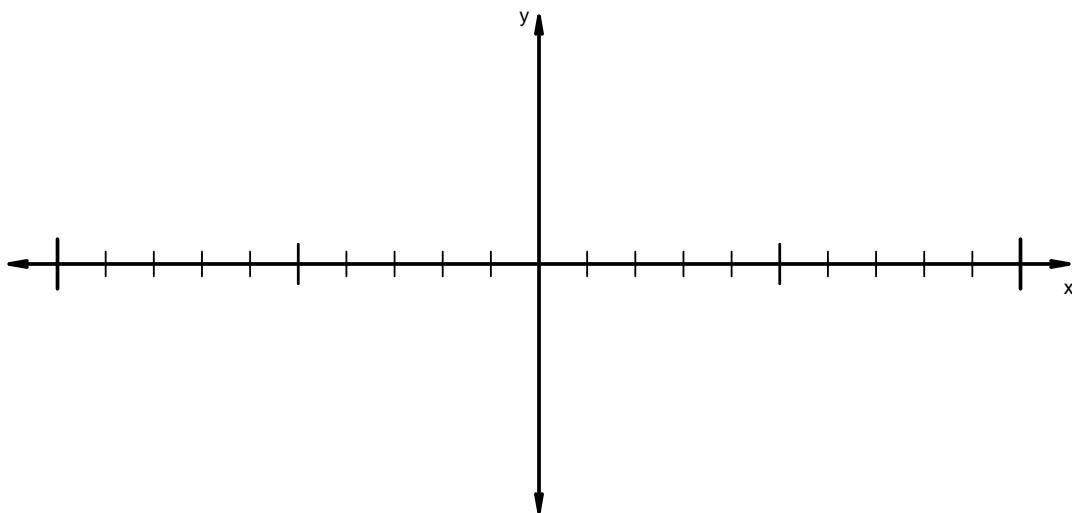
Polynomial Factoring practice (version 37)

3. Write function $f(x) = x^3 + x^2 - 30x - 72$ in factored form. I'll give you a hint: one factor is $(x + 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 8) \cdot (x + 3)^2 \cdot (x - 2)^2 \cdot (x - 5)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 38)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 28 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-9 + 8i$ and $-2 - 6i$ in standard form $(a + bi)$.

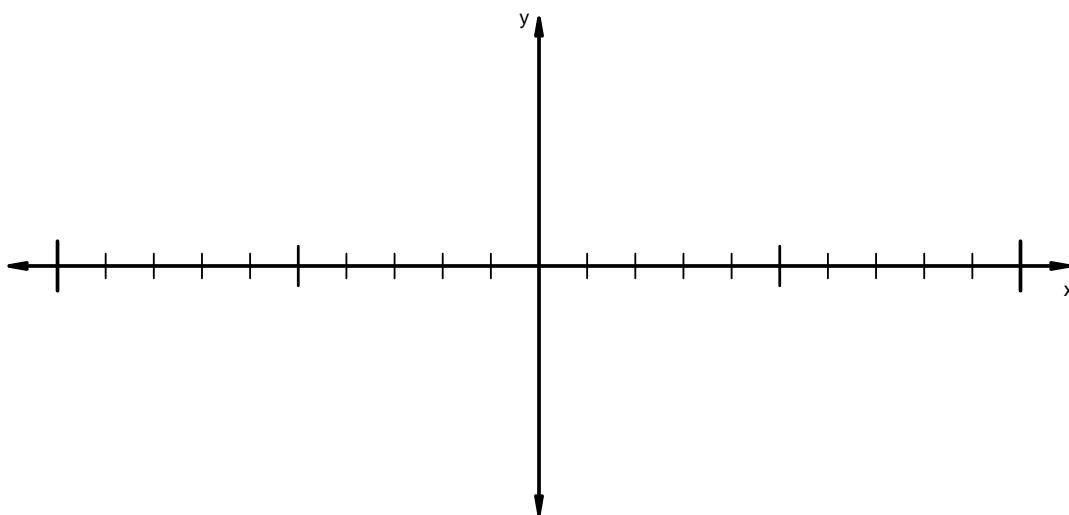
Polynomial Factoring practice (version 38)

3. Write function $f(x) = x^3 - 8x^2 + 17x - 10$ in factored form. I'll give you a hint: one factor is $(x - 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 5)^2 \cdot (x + 1) \cdot (x - 2)^2 \cdot (x - 6)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 39)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 63 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 + 3i$ and $-6 - 2i$ in standard form $(a + bi)$.

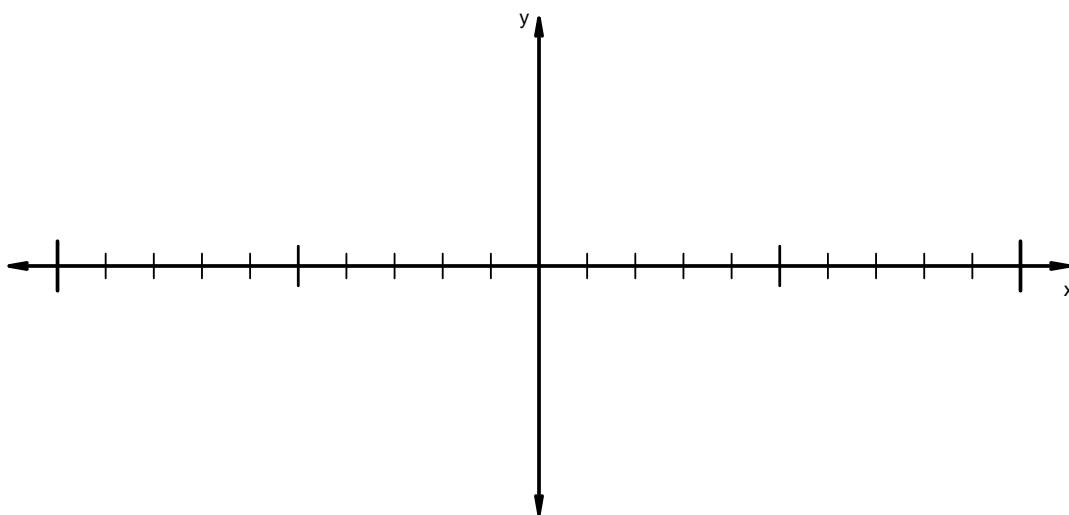
Polynomial Factoring practice (version 39)

3. Write function $f(x) = x^3 - 4x^2 - 20x + 48$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 4)^2 \cdot (x - 1) \cdot (x - 4)^2 \cdot (x - 7)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 40)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 2x + 13 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-4 + 3i$ and $6 - 7i$ in standard form $(a + bi)$.

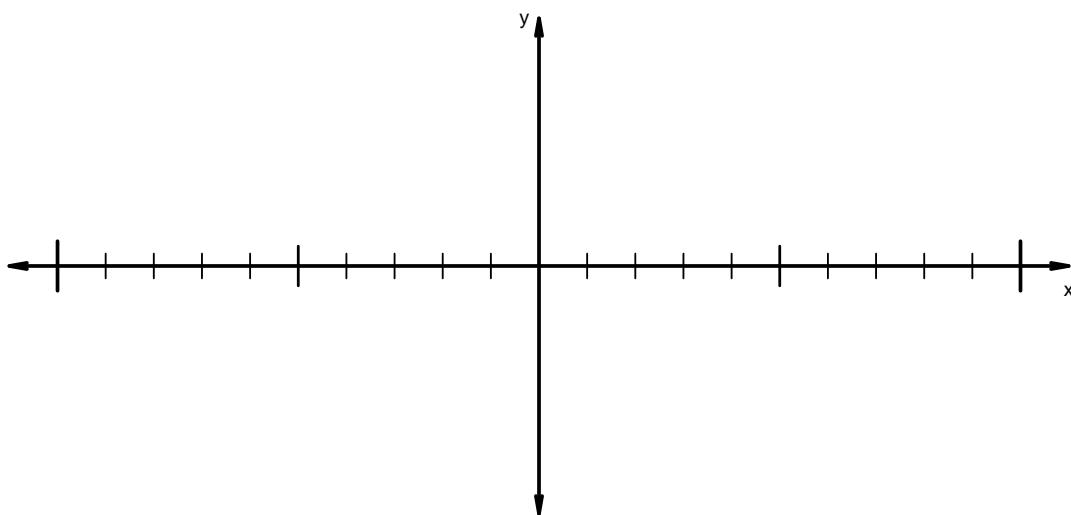
Polynomial Factoring practice (version 40)

3. Write function $f(x) = x^3 - 4x^2 - 4x + 16$ in factored form. I'll give you a hint: one factor is $(x + 2)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 6)^2 \cdot (x + 2) \cdot (x - 2)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 41)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 4x + 11 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $9 + 7i$ and $3 + 6i$ in standard form $(a + bi)$.

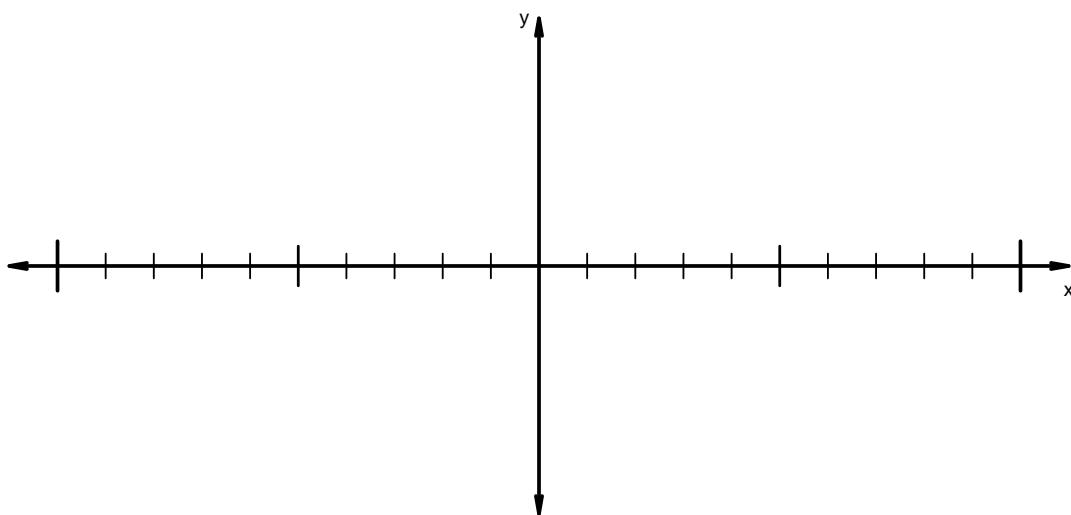
Polynomial Factoring practice (version 41)

3. Write function $f(x) = x^3 + x^2 - 25x - 25$ in factored form. I'll give you a hint: one factor is $(x - 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 1) \cdot (x - 2)^2 \cdot (x - 5)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 42)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 12x + 38 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $2 - 3i$ and $5 - 8i$ in standard form $(a + bi)$.

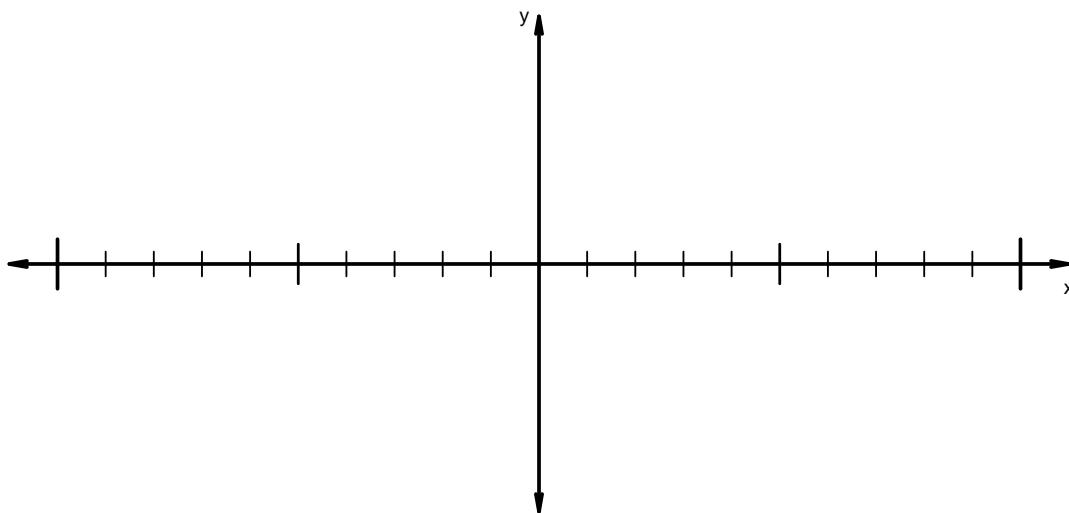
Polynomial Factoring practice (version 42)

3. Write function $f(x) = x^3 + 2x^2 - 9x - 18$ in factored form. I'll give you a hint: one factor is $(x - 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 4) \cdot (x + 1)^2 \cdot (x - 3) \cdot (x - 7)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 43)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 12x + 42 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $6 + 3i$ and $-9 - 8i$ in standard form $(a + bi)$.

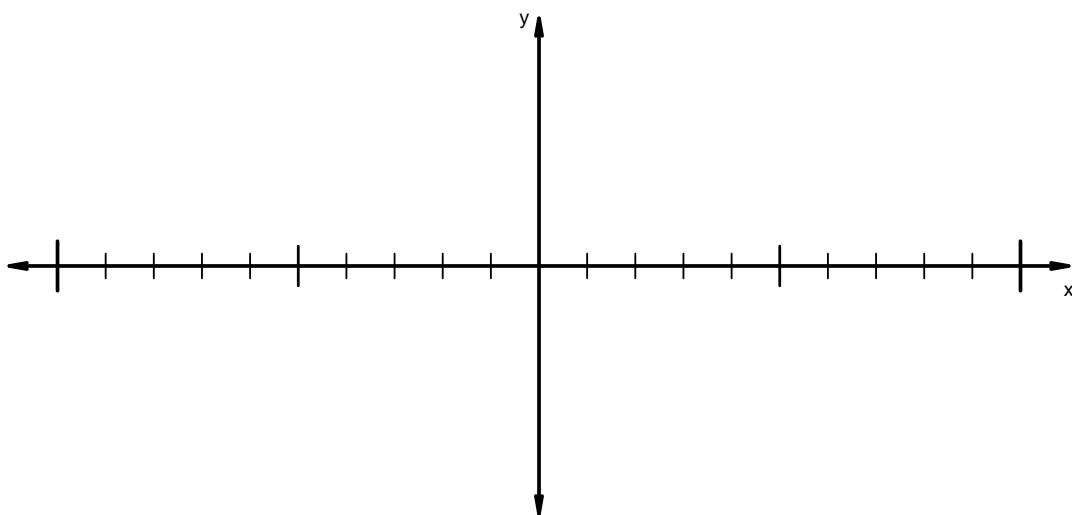
Polynomial Factoring practice (version 43)

3. Write function $f(x) = x^3 + 5x^2 - x - 5$ in factored form. I'll give you a hint: one factor is $(x - 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 2) \cdot (x - 1)^2 \cdot (x - 6)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 44)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 12x + 63 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-2 + 6i$ and $-7 + 5i$ in standard form $(a + bi)$.

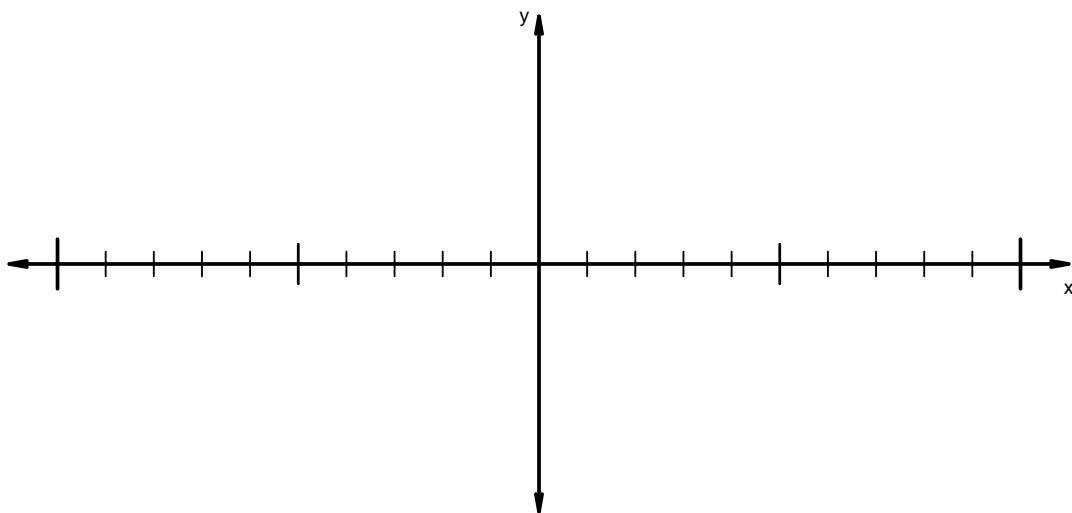
Polynomial Factoring practice (version 44)

3. Write function $f(x) = x^3 + 6x^2 - 4x - 24$ in factored form. I'll give you a hint: one factor is $(x + 2)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 4)^2 \cdot (x - 1) \cdot (x - 5)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 45)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 2x + 19 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-7 + 2i$ and $-9 + 3i$ in standard form $(a + bi)$.

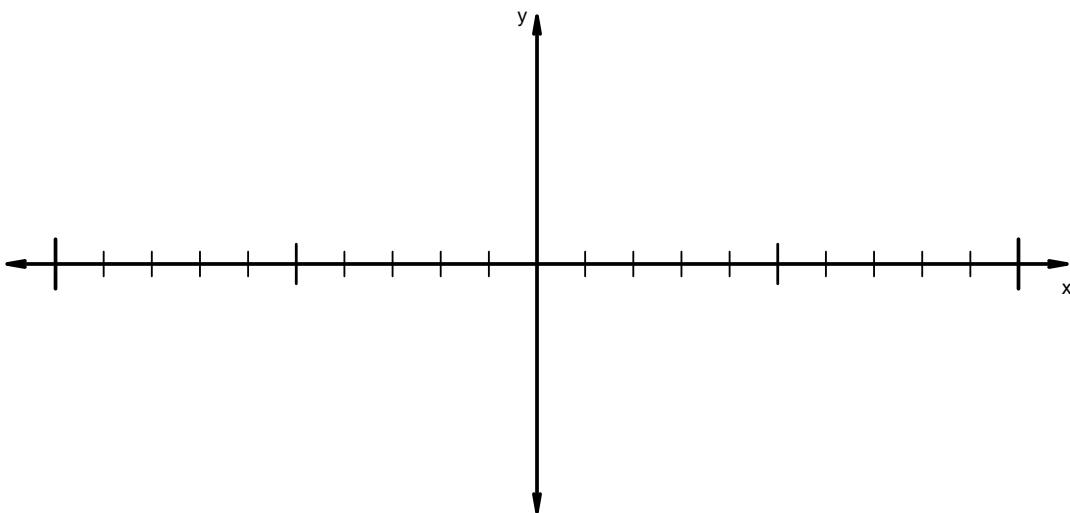
Polynomial Factoring practice (version 45)

3. Write function $f(x) = x^3 + 6x^2 - x - 30$ in factored form. I'll give you a hint: one factor is $(x + 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 7) \cdot (x + 2)^2 \cdot (x - 2) \cdot (x - 6)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 46)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 10x + 43 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $8 + 4i$ and $-5 + 7i$ in standard form $(a + bi)$.

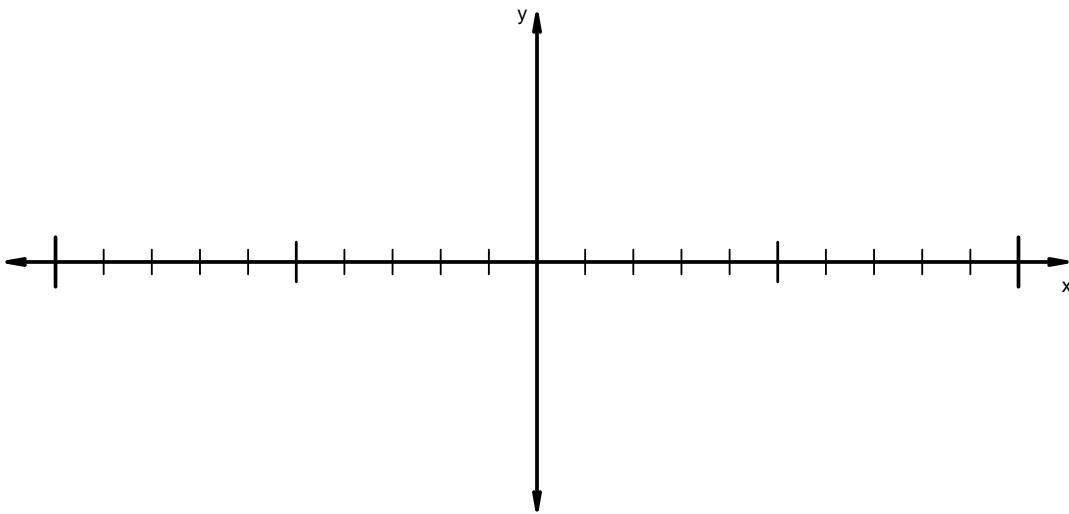
Polynomial Factoring practice (version 46)

3. Write function $f(x) = x^3 - 4x^2 - 20x + 48$ in factored form. I'll give you a hint: one factor is $(x + 4)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 2)^2 \cdot (x - 3) \cdot (x - 8)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 47)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 10x + 52 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 - 5i$ and $2 - 3i$ in standard form $(a + bi)$.

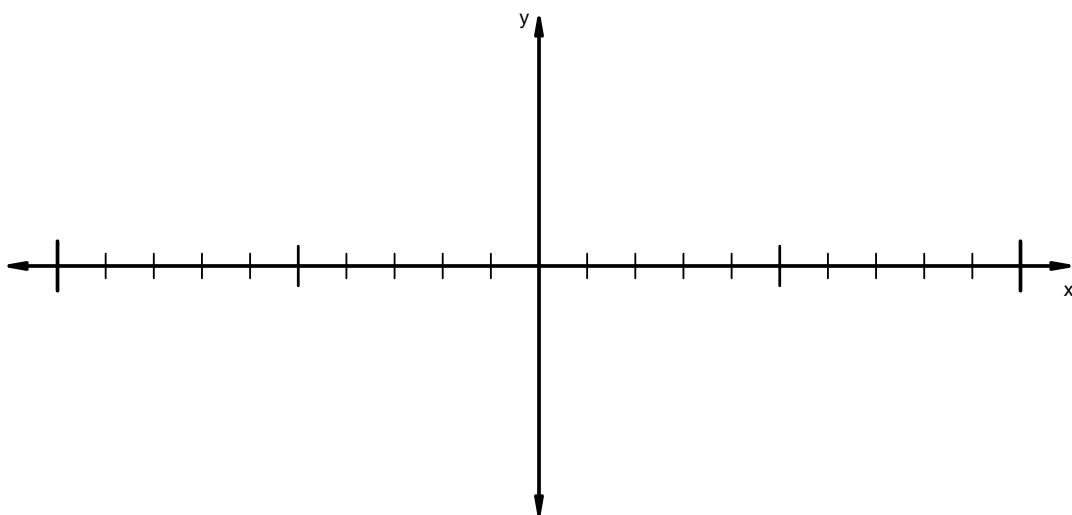
Polynomial Factoring practice (version 47)

3. Write function $f(x) = x^3 - 7x^2 + 4x + 12$ in factored form. I'll give you a hint: one factor is $(x + 1)$.

4. Polynomial p is defined below in factored form.

$$p(x) = -(x + 4) \cdot (x + 1)^2 \cdot (x - 3) \cdot (x - 7)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 48)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 4x + 15 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-8 + 3i$ and $4 - 5i$ in standard form $(a + bi)$.

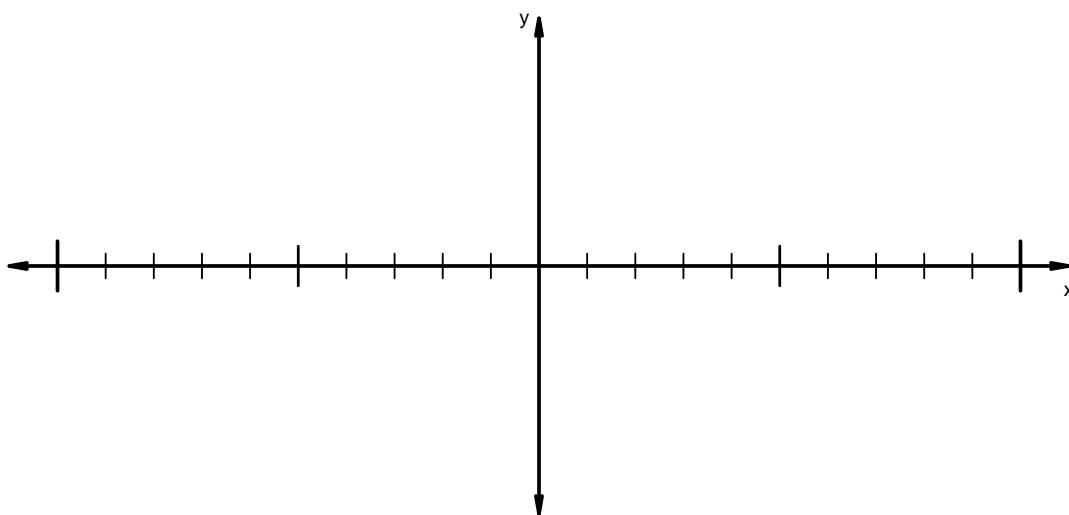
Polynomial Factoring practice (version 48)

3. Write function $f(x) = x^3 - 7x^2 - 6x + 72$ in factored form. I'll give you a hint: one factor is $(x + 3)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 7) \cdot (x + 2)^2 \cdot (x - 1)$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 49)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 + 8x + 34 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $-5 + 4i$ and $-3 - 2i$ in standard form $(a + bi)$.

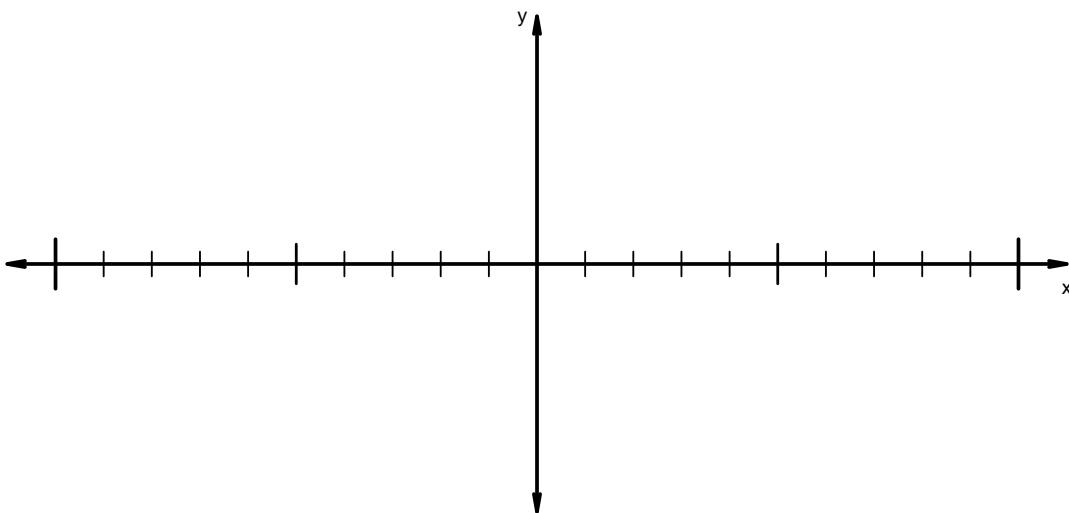
Polynomial Factoring practice (version 49)

3. Write function $f(x) = x^3 - 10x^2 + 27x - 18$ in factored form. I'll give you a hint: one factor is $(x - 6)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 1) \cdot (x - 4)^2$$

Sketch a graph of polynomial $y = p(x)$.



Name: _____ Date: _____

Polynomial Factoring practice (version 50)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 10x + 52 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of $7 + 8i$ and $-4 - 5i$ in standard form $(a + bi)$.

Polynomial Factoring practice (version 50)

3. Write function $f(x) = x^3 + 10x^2 + 19x - 30$ in factored form. I'll give you a hint: one factor is $(x + 5)$.

4. Polynomial p is defined below in factored form.

$$p(x) = (x + 2)^2 \cdot (x - 3) \cdot (x - 8)$$

Sketch a graph of polynomial $y = p(x)$.

